

IN THE CLAIMS

Please cancel claim 1. Please add the following claims:

14. A method of conducting an optical inspection of a specimen in association with an optical disc and at least one optical reader, said method comprising:

providing a specimen support surface associated with said disc;

providing optically readable position and tracking encoded information to be read by said optical reader in association with said disc;

reading said encoded information with an optical reader; and

optically inspecting said specimen using a light source and at least two light detectors.

15. The method of claim 14 wherein said optically inspecting said specimen includes the use of three light detectors.

16. The method of claim 14 including separately measuring the output of a first detector output and a second detector output.

17. The method of claim 16 including separately measuring the output of a third detector output.

18. The method of claim 16 including comparing the first detector output and the second detector output to produce a ratio thereof.

19. The method of claim 18 including using a measured output of a first detector output and said ratio in an analysis of the inspection of said specimen.

20. The method of claim 19 including using a measured output of a third detector output in said analysis.

21. The method of any one of claims 14 through 20 wherein said at least two detectors are positioned on opposite sides of said disc.

22. The method of claim 15 wherein a first one of said detectors is on one side of said disc and a second and third detector of said detectors is on an opposite side of said disc.
23. The method of claim 21 wherein a first one of said detectors reads reflected light modulated by said encoded information of said disc.
24. The method of claim 23 wherein a second one of said detectors reads light transmitted through said disc.
25. The method of claim 24 wherein said second one of said detectors reads light transmitted through said encoded information after interaction of said light with a respective specimen.
26. The method of claim 25 wherein a third detector reads light transmitted through said encoded information after interaction of said light with a respective specimen.
27. The method of claim 26 wherein an analysis of said specimen uses the reading of a third detector only when the reading of a second detector or the ratio of the reading of a first detector relative a second detector exceeds a predetermined value.
28. A method for carrying out an optical inspection and analysis of a biological specimen in association with a computer, said method comprising:
- providing optically readable position encoded information in conjunction with an optical disc capable of being scanned and read by an optical reader associated with a computer;
 - providing a biological specimen for optical inspection of a sample support surface associated with said optical disc;
 - optically inspecting said specimen with a light source and detector system and producing a first data stream suitable for input to a computer; and
 - optically reading the encoded information of said disc and producing a second data stream suitable for input to a computer, said detector system for optically inspecting said specimen including a first detector on one side of said disc and a second detector on an opposite side of said disc.